

RUTGERS UNIVERSITY

The State University of New Jersey

INSTITUTE OF MICROBIOLOGY

NEW BRUNSWICK, NEW JERSEY

CHARTER 7-1766

Dear Esther and Josh,

business

- (1) experiment # 269 was in three parts - unlabelled as to subparts - with three crosses with diploid isolations:

W 2572 x W 1324

W 2573 x W 1324

W 2571 x W 1324

- (2) concerning Gal 7 of W 583 (which I was given with the label Gal a):

- W 583 and W 2406 were both mixed for Ip_2 and I selected the one which was given in the book - both cultures were singled by me (but these would be derivatives of the master stocks)
- ~~W 583~~ W 2406 never tested on EMB galactose since W 583 X W 2406 gave Gal + recombinants
- unusual Gal fermentation color of H_{ts} IV-2 and IV-76 is recorded in my notes but attributed to medium differences (?)
- 'reversions' of H_{ts} IV-2 and IV-76 were never back-crossed as far as can find in my notes

Thus a Gal-slow in 2406 is not ruled out by my data. As noted in my book 583 was called Gal a because it was not yet sure that it was Gal 7 - something to do with ability or inability to be transduced.

- (3) wrote library re book which should have been returned thru usual channels - I found it the morning I took off for Cal and left it to be returned but apparently it never was

- (4) nothing new here research wise

- (5) by Parisian (ienne) informant and from CSH - Jacob has 'irrefutable proof' of partial transmission in KL2 - as near as I can figure what he does is this: cook cross in buffer or broth/~~for~~/~~very~~, withdraw aliquots as function of time, pop into Waring blender, plate for recombinants and test for battery of unselected markers - findings: longer one cooks before blending the greater the frequency of recombs with unselected marker derived from F⁺ (or, rather, Hfr) parent

CSH very excited about this according to Werner Braun - but I pointed out that this is solely a coitus interruptus experiment and proves nothing about the normal mechanism except that one can chop up the chromosome with a Waring blender - apparently Yvonne L_{nni} has done the same thing with phage (using two marked phage and blender).

other

- (1) was at CSH phage grad - Gus Doermann fell and broke his elbow - had to have bone chip removed but is recovering uneventfully according to late reports
- (2) saw Seymour - he and Susie Mayr quite thick by criterion of squirting each other with water pistols all day - no discussion of science
- (3) rumor that Roger R_{id} of ONR will be next director here
- (4) Bernie Davis turned up with wife at CSH - rumor that he left her waiting at the church also rife - but apparently the wedding did come off

(5) Braun is foaming at mouth here because anti-genetics faction (everyone but Waclaw, Braun, and myself) maintains:

"nucleus has nothing to do with cell growth, metabolism, etc."

"chromosomes are waste products of cell metabolism - made up of alkaline phosphatase condensed on unspecific protein and metaphosphate"

"mutants are due to different conditions of nutrition of the cell"

(6) point brought up at Brookhaven:

re Demerec et al linear subgenic structure - only one found for each amino acid in Salmonella but there are loci scattered over all the chromosomes in Neurospora - why?

answer by Davis or Hotchkiss - maybe several pathways of synthesis of amino acids in Neurospora (but then why does a mutation at one point close down the cell?)

Waclaw, Braun, and I got to talking - proposed that amino acid, etc., is not merely synthesized at a given locus (or structural mechanism of synthesis determined at that locus) but also incorporated into a pre-fab sub-unit of cellular structure - thus each locus is indispensable but externally supplied amino acid, etc., can be used - to test this idea labelled amino acid would be fed to several mutants and resultant mycelium fractionated for structural components - cell walls, mitochondria (?), ratio of labelled to total ~~total~~ amino acid should vary in different fractions, furthermore, unlabelled component should be found (but difficult to test ~~since~~ obviously)

What do you think of the idea?

*Regards - may drop in for dinner
if I get job out west + have to
drive out*

Ear